MEDICAL DEVICE FOR CONTROLLED DRUG DELIVERY AND CARDIAC MONITORING AND/OR STIMULATION

Abstract of the Disclosure

Medical device and methods are provided for controlled drug delivery in a cardiac patient. The device includes an implantable drug delivery module comprising reservoirs containing a drug and a control means for selectively releasing an effective amount of drug from each reservoir; one or more electrodes or sensors for cardiac monitoring, stimulation, or both; and a microcontroller for controlling operational interaction of the drug delivery module and the cardiac electrode. The electrodes may comprise ECG monitoring, cardioversion, or cardiac pacing electrodes. A medical device also is provided for controlled delivery of drug to a patient having congestive heart failure, which includes an implantable drug delivery module comprising a natriuretic peptide and a release mechanism for selectively releasing a pharmaceutically effective amount of the natriuretic peptide into the patient; and a microcontroller for controlling the release mechanism, for example, in response to one or more monitored patient parameters.